

REMARKS

The Examiner's Office Action mailed on April 6, 2005 has been received and its contents carefully considered.

Claims 1, 3, 7-12 and 16-21 were previously pending in this application. Claims 12 and 16-21 were withdrawn on February 8, 2005 in response to an election requirement, and are canceled herein without prejudice to or waiver of the subject matter recited therein. In addition, claim 3 is canceled, claims 1 and 10 are amended, and new claims 22-26 are added herein. Claim 1 and new claim 22 are the current independent claims.

In the Action, the Examiner indicates that claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Rather than rewriting claim in independent form, the applicant has elected to cancel claim 3 and incorporate its limitations into claim 1, thereby placing independent claim 1, as well as claims 7-9 and 11, which depend from claim 1, in condition for allowance. Claim 10 is amended herein to depend from new claim 22, as discussed below.

In the current Action, the Examiner rejects claims 1, and 7-11 under 35 USC 103(a) as being obvious over Wu (U.S. Patent No. 6,239,007 B1). It is respectfully submitted that the rejection is moot in view of the amendment of claim 1 to incorporate the limitations of claim 3, thereby placing all the claims in condition for allowance.

The present invention, as now claimed, is characterized in that an etch-back to the whole surface of the first insulating film is performed after the first insulating film is deposited, until the thickness of the first insulating film becomes less than the height of the first polysilicon (lower gate electrode). As described in the application, this process of etching back after forming the first insulating film serves to advantageously reduce film thickness irregularity. If the insulating film were initially formed to be thin, the resulting irregularity in film thickness would affect the thickness of the side walls of the lower gate electrode and the desired electrode form would not be consistently obtained, resulting in lower yield. The present invention reduces film thickness irregularity of the insulating film to improve yield.

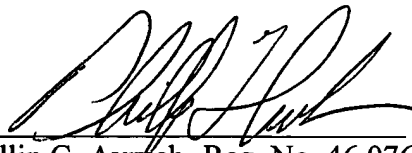
In the current Office Action, the Examiner takes the position that Wu substantially discloses the claimed invention, except for thinning the first insulating layer by etching the entire surface of the insulating film. In explaining the allowability of claim 3, the Examiner acknowledges that there is no need in Wu to etch the entire insulating film, and it would take improper hindsight to modify Wu to teach the disclosed limitation.

New independent claim 22 recites all of the limitations of amended claim 1, except for "using a dry etching method." As noted above, claim 3 has been allowed because it recites thinning the first insulating layer by etching the entire surface of the insulating film. The applicant believes that the specific use of a dry etching method is not material to the Examiner's rationale for allowing claim 3. Please note that the omitted limitation appears in claim 10, which is now amended to depend from claim 22. For the foregoing reasons, it is respectfully submitted that new claims 22-26, and amended claim 10, also patentably distinguish over Wu.

The Examiner's various objections and rejections having been fully addressed, it is submitted that the application as amended is in condition for allowance. Notice of such, with claims 1, 7-11 and 22-26, is earnestly solicited.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Respectfully submitted,



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July 6, 2005
Date

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